

Claims: We claim:

1) An unsolicited message rejecting communications processor connected to message transfer agents

MTA_0 with an Internet address of IP_0, from-address A_0, declared domain of D_0, and actual domain of DD_0, and

MTA_1 with an Internet address of IP_1 and to-address A_1

comprising:

- a) monitoring means for monitoring the communications between MTA_0 and MTA_1;
- b) determining means for determining if the communications contains an unsolicited message; and
- c) intercepting means for intercepting a .\r\n end-of-message indicator reply from MTA_0, forcing MTA_0 to QUIT its connection with MTA_1 by sending an error reply to MTA_0 if the message is determined to be unsolicited.

whereby MTA_1 controls the interaction between MTA_0 and MTA_1 before a .\r\n end-of-message indicator reply from MTA_0 is received.

- 2) The unsolicited message blocking communications processor in Claim 1, further includes a allow_address database and wherein the determining means determines if a message is not unsolicited by checking if the IP_0 is in the allow_address database.
- 3) The unsolicited message blocking communications processor in Claim 1, further includes a prevent_address database and wherein the determining means determines if a message is unsolicited by checking if IP_0 is in the prevent_address database.
- 4) The unsolicited message blocking communications processor in Claim 1, further includes access to a open relay database and wherein the determining means determines if a message is unsolicited by checking if IP_0 is in the open relay database.
- 5) The unsolicited message blocking communications processor in Claim 1, further includes access to a DNS (domain name server) database and wherein the determining means determines if a message is unsolicited by checking if IP_0 has a domain name entry DD_0 in the DNS database.

- 6) The unsolicited message blocking communications processor in Claim 1, further includes a bad_from database and wherein the determining means determines if a message is unsolicited by checking if the from-address A_0 is in the bad_from database.
- 7) The unsolicited message blocking communications processor in Claim 1, further includes a suspect_domain database and wherein the determining means determines if a message is unsolicited by checking if the actual domain DD_0 matches the domain of from-address A_0 and the domain of from-address A_0 is in the suspect_domain database.
- 8) The unsolicited message blocking communications processor in Claim 1, wherein the determining means determines if a message is unsolicited by checking if the from-address A_0 matches the to-address (A_1).
- 9) The unsolicited message blocking communications processor in Claim 1, further includes a no_filter database and wherein the determining means determines if the message is to be blocked if it is determined to be unsolicited.
- 10) The unsolicited message blocking communications processor in Claim 1, wherein the determining means determines if a message is unsolicited by checking if the declared domain D_0 of MTA_0 is the same as the domain D_1 of MTA_1.
- 11) The unsolicited message blocking communications processor in Claim 1, wherein the determining means determines if a message is unsolicited by checking if the declared domain D_0 of MTA_0 does not match the real domain DD_1 and the declared domain D_0 is in the suspect_domain database.
- 12) The unsolicited message blocking communications processor in Claim 1, further includes a bad_word database and wherein the determining means determines if a message is unsolicited by checking if the subject line of the message contains any words in the bad_word database.
- 13) The unsolicited message blocking communications processor in Claim 1, further includes a bad_fingerprint database and wherein the determining means determines if the hash "fingerprint" of a portion of the message is in the bad_fingerprint database.
- 14) The unsolicited message blocking communications processor in Claim 1, further includes a rejected_connection database which logs the time, from-address A_0, to-

address A_1, and the reason for the rejection if a message is rejected if the message is determined to be unsolicited.

- 15) The unsolicited message blocking communications processor in Claim 1, further includes a allowed_connection database which logs the time and to-address A_1 if the message is determine not to be unsolicited.

16) A method for

a receiving networked computer system with an Internet connection, a mail transport agent MTA_1, an Internet address IP_1, to-address A_1, and an operating system capable of executing the method

to reject unsolicited messages from

a transmitting networked computer system with an Internet connection and a message transfer agent MTA_0, an Internet address IP_0, from-address A_0, declared domain D_0, and actual domain DD_0

comprising the steps of:

- a) waiting for a new SMTP connection request;
- b) relaying and monitoring the replies from MTA_0 to MTA_1;
- c) relaying replies from MTA_1 to MTA_0;
- d) intercepting the .\r\n end-of-message indicator reply from MTA_0 to MTA_1;
- e) determining if the message is unsolicited by analyzing the monitored replies;
- f) releasing the intercepted .\r\n end-of-message reply if the message is determined not to be unsolicited; and
- g) sending a error reply to MTA_0 to force MTA_0 and MTA_1 to close down their connection;

whereby MTA_1 controls the interaction between MTA_0 and MTA_1 until a .\r\n end-of-message indicator reply is received from MTA_0.

17) A method for

a receiving networked computer system with an Internet connection, DNS server, and open relay database, a mail transport agent MTA_1, IP address IP_1, a domain name D_1, a recipient, A_1, an allow_address database, a prevent_address database, a suspect_domain database, a bad_from database, a no_filter database, a yes_filter database, a bad_word database, a bad_fingerprint, a rejected_connection database, an allowed_connection database, and an operating system capable of executing the method

to reject unsolicited messages from

a transmitting networked computer system with an Internet connection, a message transfer agent MTA_0, an IP address of IP_0, a declared domain name D_0, a real domain name DD_0, and a sender address of A_0

comprising the steps of:

- a) waiting for a SMTP connection request on the receiving networked computer system's Internet connection;
- b) sending a 220 reply to MTA_0 to acknowledge the requested connection;
- c) extracting IP address IP_0 from the connection request;
- d) requesting a domain name DD_0 for IP_0 from the DNS server;
- e) testing if domain name DD_0 is "no name";
- f) testing if IP_0 is in an open relay database;
- g) testing if IP_0 is in the allow_address database;
- h) testing if IP_0 is in the prevent_address database,
- i) requesting a connection with MTA_1;
- j) waiting for a 220 reply from MTA_1 to acknowledge the requested connection;
- k) waiting for a reply from either MTA_0 or MTA_1;
- l) jumping to step o) if the reply is not from MTA_1;
- m) relaying the reply from MTA_1 to MTA_0;
- n) jumping to step k) to wait for a new reply;
- o) jumping to step u) if the reply from MTA_0 is not a **HELO**;
- p) extracting domain D_0 from the reply;

- q) testing if declared domain D_0 of MTA_0 matches domain D_1 of MTA_1;
- r) testing if declared domain D_0 does not match real domain DD_0 of MTA_0
AND declared domain D_0 is in the suspect_domain database;
- s) relaying the HELO reply from MTA_0 to MTA_1;
- t) jumping to step k) to wait for a new reply;
- u) jumping to step aa) if reply from MTA_0 is not a **MAIL**;
- v) extracting from-address A_0;
- w) testing if A_0 is in the bad_from database;
- x) testing if DD_0 does not match the domain of A_0 and the domain of A_0 is in
the suspect_domain database;
- y) relaying MAIL reply to MTA_1;
- z) jumping to step k) to wait for a new reply;
- aa) jumping to step ii) if reply from MTA_0 is not a **RCPT**;
- bb) extracting to-address A_1;
- cc) testing if A_1 is in no_filter database;
- dd) testing if A_0 matches A_1;
- ee) testing if A_0 is in the no_filter database;
- ff) testing if A_0 is in the yes_filter database;
- gg) relaying RCPT reply to MTA_1;
- hh) jumping to step k) to wait for a new reply;
- ii) jumping to step yy) if reply from MTA_0 is not **DATA**;
- jj) relaying DATA to MTA_1;
- kk) waiting for 354 reply from MTA_1;
- ll) relaying 343 reply to MTA_0;
- mm) wait for body of message;
- nn) relaying body of message to MTA_1;
- oo) waiting for .\r\n end-of-message indicator;
- pp) testing if any word in the subject line of the message is in the bad_word
database;
- qq) testing if the hash "fingerprint" of a portion of the message is in the
bad_fingerprint database;

- rr) jumping to step vv) if NOT(t_allow OR t_no_filter OR OR NOT t_yes_filter OR NOT (t_prevent OR t_open OR t_DD-) OR t_bad_from OR t_suspect_domain OR t_echo_domain OR t_forged_domain OR t_bad_word OR t_bad_fingerprint)) ;
- ss) logging time and to-address A_1 in the allowed_connection database;
- tt) relaying the .\r\n end-of-message indicator reply to MTA_1 to continue the conversation;
- uu) jumping to step k) to wait for a new reply;
- vv) logging the time, from-address A_0, to-address A_1, and the reason for rejecting the connection in the rejected_connection database;
- ww) sending a 554 reply to MTA_0 to terminate the conversation;
- xx) jumping to step k) to wait for a new reply;
- yy) jumping to step ggg) if reply from MTA_0 is not **RSET, SEND, SCML, SAML, VRFY, NOOP, EXPN, HELP, or TURN**;
- zz) relaying reply to MTA_1;
- aaa) jumping to step j) to wait for a new reply;
- bbb) jumping to step ddd) if reply from MTA_0 is not a **QUIT**;
- ccc) relaying the **QUIT** reply to MTA_1;
- ddd) waiting for 221 reply from MTA_1
- eee) relaying 221 reply from MTA_1 to MTA_0;
- fff) jumping to step a) to wait for a new connection;
- ggg) sending a 500 reply to MTA_0 to signal a syntax error; and
- hhh) jumping to step a) to wait for a new connection.